Vibrant NDT Services Private Limited, Plot No. SP 4 & 5, 5th Lane, 1st Main Road, Ambattur Industrial Estate, Chennai, Tamil Nadu Laboratory

Accreditation Standard ISO/IEC 17025: 2005

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Validity 26.09.2018 to 25.09.2020 Last Amended on --

SI.	Product / Material of Test	Specific Test Performed		Range of Testing / Limits of Detection
			performed	

MECHANICAL TESTING

I.	MECHANICAL PRO	PERTIES OF METALS		
1.	Ferrous & Non- Ferrous Material	Rockwell Hardness Test HRBW Scale HRC Scale Micro Vickers Test	ASTM E 18: 17e1 IS 1586 (Part 1): 2012 ISO 6508-1:2016 ASTM E 384:2017 IS 1501 (Part 2 & Part 3): 2013	60 to 99 HRBW 20 to 70 HRC HV 0.2 to HV 1
II.	METALLOGRAPHY TEST			
1.	Ferrous & Non-Ferrous	Microstructure	ASM Vol -9:2004 ASTM E 3:2011 (RA 2017) ASTM E 407:2007 (RA 2015) e1	Qualitative (50X, 100X, 200X & 500X)
2.	Steel	Volume Fraction of Phases	ASTM E 562: 11	Qualitative (50X, 100X, 200X & 500X)
		Non-Metallic Inclusion Rating by Method 'A'	ASTM E 45:18 ASTM E 1245:03 (RA 16) IS 4163:04 (RA 2017) BS EN 10247:2017	Qualitative (A, B, C & D Heavy & Thin)
3.	Ferrous Material	Average grain size by Comparison method, Planimetric method & Intercept method	ASTM E112: 13 IS 4748: 2009 (2017)	Qualitative (ASTM Grain size 1 to 8)
4.	Carbon and Alloy Steels	Depth of Decarburization by Microscopic method	ASTM E 1077: 14 IS 6396: 2000 (RA 2012)	10 Micron to 2mm / 100X & 200X
5.	Case Hardened Steel	Total case depth by microscopic method	SAE J 423:1983 IS 6416:1988 (RA 2012)	0.01 mm to 5 mm / (50X,100X,200X,500X)

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Effective case depth by micro hardness indentation	SAE J 423: 1983 IS 6416: 1988 (RA 2012)	0.05 mm to 5 mm HV 0.2 & HV 1
6.	Cast Iron	Determination of Form, distribution & size of Graphite iron	ASTM A 247: 2017 IS 7754:1975 (RA 2012) ISO 945-1:2010 ISO 1083:2004 ASM Handbook Vol-9:2004	Qualitative (50X, 100X, 200X & 500X)
7.	Weld Products	Macro Etch Test	ASME Section IX:2017	Qualitative (10X & 20X)

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